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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/602,412	06/23/2000	Melvin Richard Zimowski	ST9-99-080	9095

23373 7590 06/22/2007

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EXAMINER	
NGUYEN, QUANG N	

ART UNIT	PAPER NUMBER
2141	

MAIL DATE	DELIVERY MODE
06/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	09/602,412	ZIMOWSKI, MELVIN RICHARD	
	Examiner	Art Unit	
	Quang N. Nguyen	2141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 May 2007 and 06 June 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,3-13,15-25 and 27-47* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3-13,15-25,27-42,44 and 47* is/are rejected.

7)☒ Claim(s) *43,45 and 46* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 May 2007* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/04/2007 has been entered.

Claims 1, 13 and 25 have been amended. Claims 41-47 have been added as new claims. Claims 1, 3-13, 15-25 and 27-47 are pending for examination.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1, 13 and 25 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted essential elements are: *"prior to determining that the web page is to be cached, retrieving data and placing the data in a dynamically generated web page, wherein the data is linked to other stored objects".*

4. Claims 1, 13 and 25 only appear to be producing a tangible result, which enables any usefulness of having determined the request is to be responded to by constructing the web page or by retrieving the web page from the cache. However, if it is determined that the request is to be responded to by constructing the web page, then the following steps are "determining that the web page is to be cached, wherein the web page references other objects", "storing the referenced objects in one or more data stores" and "caching the web page in the cache", wherein the omitted elements are *"prior to determining that the web page is to be cached, retrieving data and placing the data in a dynamically generated web page, wherein the data is linked to other stored objects"*. Without the essential step of *"retrieving data and placing the data in a dynamically generated web page, wherein the data is linked to other stored objects"*, the final result achieved is a determination, storing and caching of a web page which does not exist, i.e., which has not been generated/created.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1, 3-13, 15-25, 27-42, 44 and 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burns et al. (US 6,298,373), hereinafter "Burns", in view of Ramaley et al. (US 7,100,106), hereinafter "Ramaley".

7. As to claim 1, **Burns** teaches a method for responding to a request for a web page, comprising:

determining whether to respond to a request for a web page by retrieving the web page from a cache or by constructing the web page **(Burns, col. 8, lines 23-40)**;

if it is determined that the request is to be responded to by constructing the web page *(i.e., if there is no proxy copy, using the URL request to locate the target resource and to request delivery of the target resource over the Internet)* **(Burns, col. 8, lines 33-36)**,

determining that a web page to be cached, wherein the web page references other objects *(a policy manager 128 which defines and administers rules that determine which documents or resources, i.e., web pages, are cached in the cache memory 124, for instance, a Web page which references other objects such as images, audio or video tiles from a frequently visited Web site)* **(Burns, col. 10, lines 48-55)**;

storing the referenced objects in one or more data stores *(if the Web page references or includes continuous data files, such as audio or video files, these referenced files are stored in a continuous media server CMS 126)* **(Burns, col. 5, lines 8-20)**;

caching the web page in a cache *(caching the content received from the content provider, i.e., caching the frequently requested Web page in the cache memory 124 based on the policy manager 128)* **(Burns, col. 10, lines 48-55)**;

if it is determined that the request is to be responded to by retrieving the web page from the cache, retrieving the web page from the cache *(i.e., if a proxy copy is stored in the cache memory 124, the target resource is served locally from the cache memory 124)* **(Burns, col. 8, lines 31-33)**;

automatically managing the cached web page and the referenced objects to ensure the display of a complete web page *(the target specifications embedded in the Web page to reference the continuous data files are modified/managed to reference the local copy of the continuous data files so that the continuous video/audio data stream can be rendered just-in-time by the subscriber, i.e., to ensure the display of a complete web page with all the referenced objects)* **(Burns, col. 9, line 42 – col. 10, line 10)**.

However, **Burns** does not explicitly teach when one or more of the referenced objects are deleted, deleting the web page from the cache.

In an analogous art, **Ramaley** teaches a system and method of mirroring operations performed on linked files and folders, wherein whenever a file operation *(e.g., delete, cut, copy, move, undo, restore, etc.)* performed on a primary file 302 *(i.e., a web page)* is also performed on the supporting files 200, 202 and 204 *(i.e., referenced objects)* and the folder 300 containing the supporting files. Similarly, any supporting files/folder operation performed on the supporting files/folder is also performed on the

primary file 302 *(i.e., delete web pages that contain deleted referenced objects and vice versa)* **(Ramaley, Abstract, col. 6, lines 23-45 and col. 7, lines 29-55)**.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the features of one or more of the referenced objects is deleted, deleting the web page from the cache and vice versa, as disclosed by **Ramaley**, into the teaching of **Burns**, since both references are both directed to handling/managing web pages and their supporting files, hence, would be considered to be analogous based on their related endeavor. One would be motivated to do so to help the system and users to store and manage primary files such as main HTML files and web pages as well as their corresponding support files as a single entity **(Ramaley, col. 7, line 56 – col. 8, line 9)**.

8. As to claim 3, **Burns-Ramaley** teaches the method of claim 1, further comprising, when the web page is deleted from the cache, deleting the referenced objects **(Ramaley, Abstract, col. 6, lines 23-45 and col. 7, lines 29-55)**. The same motivations regarding the obviousness of claim 1 also apply equally well to claim 3.

9. As to claim 4, **Burns-Ramaley** teaches the method of claim 1, further comprising:

receiving a request to generate a dynamic web page *(receiving a request for the CNN Web page from the first subscriber of 6:40* AM); and

retrieving data and placing the data in a dynamically generated web page *(the local service provider 110 retrieves and serves the Web page, with hyperlinks to various data items, such as audio and/or video clips, from the cached memory 124)* **(Burns, col. 9, line 42 – col. 10, line 10)**.

10. As to claims 5-6, **Burns-Ramaley** teaches the method of claim 4, wherein managing the cached web page and referenced objects comprises the steps of:

receiving a request from an administrator to delete the retrieved data *(or linked objects)* based on administrator-provided input *(time-to-live "TTL" tags are computed by the local service providers and assigned to the content to assist in determining when the content should be refreshed or disposed/deleted)* **(Burns, col. 10, line 59 – col. 11, line 19)**; and

deleting the retrieved data *(or linked objects)* based on the administrator-provided input *(deletion policies are a function of the content itself, i.e., the content will be deleted when its "TTL" tag assigned by the administrator of local service providers expires, and/or by how frequently the content is requested, etc.)* **(Burns, col. 10, line 59 – col. 11, line 19)**.

11. As to claim 7, **Burns-Ramaley** teaches the method of claim 1, further comprising, processing a caching directive that specifies whether the web page should be cached *(a policy manager 128 defines and administers rules that determine which*

documents, i.e., web pages, are cached in the cache memory 124) **(Burns, col. 10, lines 48-55)**.

12. As to claims 8-9, **Burns-Ramaley** teaches the method of claim 1, further comprising, associating an expiration timestamp with the web page, wherein the expiration timestamp defines a time period in which the cached web page is valid and automatically deleting the web page and the referenced objects when the expiration timestamp precedes a current timestamp *(time-to-live "TTL" tags are computed and assigned to the content to assist in determining when the content should be refreshed or disposed, i.e., when the time-to-live "TTL" expires, the content is no longer valid and should be updated or deleted)* **(Burns, col. 10, line 59 – col. 11, line 19)**.

13. As to claim 11, **Burns-Ramaley** teaches the method of claim 8, wherein managing the cached web page and referenced objects comprising:

receiving a request from an administrator to delete all cached web pages according to some administrator-specified selection criteria *(the local service providers, i.e., the administrators, might compute the "TTL" tags for the content, i.e., for the cached web pages, it caches in cache memory based on some specified selection criteria)* **(Burns, col. 10, line 65 – col. 11, line 14)**; and

deleting all cached web pages and referenced objects that satisfy the administrator-specified selection criteria *(deletion policies are a function of the content*

itself, for example, when the "TTL" set by the administrator expires, how frequently the content is requested, etc., the content will be deleted) **(Burns, col. 11, lines 15-19)**.

14. Claims 10 and 12 recite method claims contain similar limitations as method claim 3; therefore, it is rejected under the same rationale.

15. As to claim 37, **Burns-Ramaley** teaches the method of claim 1, wherein at least one of the referenced objects is not stored in said cache *(the audio and video clips referenced by the hyperlinks are stored in the content media server CMS 126)* **(Burns, col. 9, lines 45-48)**.

16. Claims 13, 15-24 and 38 are corresponding apparatus claims of method claims 1, 3-12 and 37; therefore, they are rejected under the same rationale.

17. Claims 25, 27-36 and 39 are corresponding article of manufacture claims of method claims 1, 3-12 and 37; therefore, they are rejected under the same rationale.

18. As to claim 40, **Burns-Ramaley** teaches the method of claim 1, wherein the cached web page and the referenced objects are automatically managed ensuring the display of a complete web page by referencing a dependency table storing relation information for the cached web page and the referenced objects *(a conversion table can be constructed which converts requests from referencing the files at the "original" Web*

site to referencing the files in the "local" CMS 126, inherently, the conversion table must have included the "original" links to the target data content at the "original" Web site and the "modified" links to the target data content at the "local" CMS 126, wherein both "original" and "modified" links are associated/embedded with/within the corresponding cached web page, i.e., containing relation information for the cached web page and the referenced objects) **(Burns, col. 9, lines 52-65)**.

19. As to claim 41, **Burns-Ramaley** teaches the method of claim 1, wherein caching directives are used in determining whether to cache the constructed web page *(a policy manager 128 defines and administers rules that determine which documents, i.e., web pages, are cached in the cache memory 124)* **(Burns, col. 10, lines 48-55)**.

20. As to claim 42, **Burns-Ramaley** teaches the method of claim 1, wherein it is determined that the request is to be responded to by retrieving the web page from the cache when the request matches a cache key *(when the request handler 111 receives a request, the local service provider 110 first looks to its own cache memory 124 to determine if a proxy copy of the target resource referenced by the URL is stored locally. If a proxy copy is stored in the cache memory 124, the target resource is served locally from the cache memory 124)* **(Burns, col. 8, lines 23-33)**.

21. As to claim 44, **Burns-Ramaley** teaches the method of claim 42, wherein the cache key comprises path information, a macro name, an HTML or XML block name,

and a query string that caused the web page to be generated *(the URL referencing the target resource "http://www.microsoft.com/upgrades" comprises the name of the remote host computer "www.microsoft.com" which maintains the target resource and the path and file name of the target resource "/upgrades" on the remote host computer)* **(Burns, col. 8, lines 5-23)**.

22. As to claim 47, **Burns-Ramaley** teaches the method of claim 1, wherein web server software generates the web page when it is determined that the request is to be responded to by constructing the web page *(i.e., if there is no proxy copy, using the URL request to locate the target resource and to request delivery of the target resource over the Internet)* **(Burns, col. 8, lines 33-36)**.

Allowable Subject Matter

23. Claims 43, 45 and 46 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

24. In the Remarks, Applicant argued in substance that

(**A**) "Burns is not Analogous Prior Art" because "Burns reference is not reasonably pertinent to the problem of reducing expense required to respond to a request for a web page" (see Remarks filed on 02/07/2007, pages 12-13).

In response to point (**A**), **Burns** teaches a network system includes a content provider connected to local service providers via an interactive distribution network, such as the Internet. The local service providers facilitate delivery of the content from the content provider to multiple subscribers. The content is downloaded from the content provider during the off-peak hours and cached at the local service providers for serving to the subscribers during the ensuing peak time. In this manner, the frequently requested content is already present at the local service providers (cache) and ready to be served to the subscribers **(Burns, Abstract)**.

In addition, **Burns** teaches when the content is finally requested, the data is streamed continuously in real-time for just-in-time rendering at the subscriber. This eliminates the latency problems *(i.e., reducing the expense in computing resources or time)* because the subscribers do not have to wait for the downloading of web pages containing video and audio files over the Internet *(i.e., pertinent to the problem of reducing expense required to respond to a request for a web page)* **(Burns, col. 4, lines 39-44)**.

Hence, Examiner respectfully submits that *"Burns is an Analogous Prior Art"* because Burns reference is in fact reasonably pertinent to the problem of reducing expense required to respond to a request for a web page.

(**B**) Burns in view of Ramaley does not teach or suggest *"determining whether to respond to a request for a web page by retrieving the web page from a cache or by constructing the web page"* as disclosed in claims 1, 13 and 25.

In response to point (**B**), Examiner respectfully submits that Burns teaches when the request handler 111 receives a request, the local service provider 110 (e.g., ISPs or Web servers) first looks to its own cache memory 124 to determine if a proxy copy of the target resource referenced by the URL is stored locally *(i.e., determining whether to respond to a request for a web page by retrieving the web page from a cache)*. If a proxy copy is stored in cache memory 124, the target resource is retrieved and served locally from the cache memory 124. If there is no proxy copy, the local service provider 110 uses the URL request to locate the target resource from a content provider and to request delivery of the target resource over the Internet **(Burns, col. 8, lines 23-40)**.

Also, Examiner respectfully submits that it is implicit in light of the specification that when a request is not to be responded to by retrieving the web page from a cache, the request for that web page would be responded to by constructing the web page.

25. Applicant's arguments as well as request for reconsideration filed on 05/04/2007 have been fully considered but they are not deemed to be persuasive.

26. A shortened statutory period for reply to this action is set to expire THREE (3) months from the mailing date of this communication. See 37 CFR 1.134.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang N. Nguyen whose telephone number is (571) 272-3886.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's SPE, Rupal Dharia, can be reached at (571) 272-3880. The fax phone number for the organization is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Quang N. Nguyen
Patent Examiner
AU – 2141